

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A particle separator comprising:

a vortex chamber receiving feed slurry via a feed inlet, the feed inlet being positioned relative to the vortex chamber to effect rotation of the feed slurry upon entry in the vortex chamber and to generate a fluid vortex, the vortex chamber comprising a conical section beneath the feed inlet, wherein the conical section terminates at an apex; and

a bulb housing coupled with the vortex chamber, the bulb housing comprising a vortex destroyer disposed adjacent the conical section apex, wherein the vortex destroyer contains the fluid vortex to the vortex chamber, the bulb housing defining a settling chamber beneath the vortex destroyer that collects solid particles.
2. (Original) A particle separator according to claim 1, wherein the bulb housing is removably coupled with the vortex chamber.
3. (Original) A particle separator according to claim 1, wherein the vortex destroyer comprises at least one fin extending partially across a width of the bulb housing.
4. (Original) A particle separator according to claim 3, wherein the vortex destroyer comprises a plurality of fins.
5. (Original) A particle separator according to claim 1, wherein the vortex destroyer comprises at least one substantially V-shaped fin suspended from a bottom section of the vortex chamber into the bulb housing.
6. (Original) A particle separator according to claim 5, wherein the vortex destroyer comprises a plurality of substantially V-shaped fins.

7. (Original) A particle separator according to claim 6, wherein the bulb housing is cylindrical, and wherein the plurality of substantially V-shaped fins are equally spaced about a circumference of the bulb housing.

8. (Original) A particle separator according to claim 1, wherein the vortex destroyer is configured such that solid materials in the feed slurry move radially outward from the conical section apex.

9. (Currently Amended) A particle separator comprising:
a feed inlet;
a vortex chamber in fluid communication with the feed inlet and including a conical section beneath the feed inlet, wherein the conical section terminates at an apex;
a bulb housing coupled with the vortex chamber;
a vortex destroyer disposed in the bulb housing adjacent the conical section apex; and
a settling chamber defined by the bulb housing, the settling chamber being beneath the vortex destroyer.

10. (Original) A particle separator according to claim 9, wherein the bulb housing is removably coupled with the vortex chamber.

11. (Original) A particle separator according to claim 9, wherein the vortex destroyer comprises at least one fin extending partially across a width of the bulb housing.

12. (Original) A particle separator according to claim 9, wherein the vortex destroyer comprises at least one substantially V-shaped fin suspended from a bottom section of the vortex chamber into the bulb housing.

13. (Original) A method of separating particles from a feed slurry using the particle separator of claim 1, the method comprising:

flowing the feed slurry into the vortex chamber via the feed inlet and generating a fluid vortex;

flowing the fluid vortex through the conical section apex;

containing the fluid vortex to the vortex chamber with the vortex destroyer;

permitting solid particles to move radially outward along the vortex destroyer; and

collecting the solid particles in the settling chamber.

14. (Original) A vortex destroyer disposed within a bulb housing adjacent a vortex outlet of a vortex chamber, the vortex destroyer configured for containing a fluid vortex to the vortex chamber.

15. (Original) A vortex destroyer according to claim 14, comprising at least one fin extending partially across a width of the bulb housing.

16. (Currently Amended) A vortex destroyer according to claim ~~14~~15, comprising a plurality of fins.

17. (Original) A vortex destroyer according to claim 14, comprising at least one substantially V-shaped fin suspended from a bottom section of the vortex chamber into the bulb housing.

18. (Original) A vortex destroyer according to claim 17, comprising a plurality of substantially V-shaped fins.

19. (Original) A vortex destroyer according to claim 18, wherein the bulb housing is cylindrical, and wherein the plurality of substantially V-shaped fins are equally spaced about a circumference of the bulb housing.

20. (Original) A vortex destroyer according to claim 14, configured relative to the bulb housing such that solid materials in a feed slurry from the vortex chamber move radially outward from the vortex outlet.